

MECHANICAL ENGINEERING DEPARTMENT



**YASHO
TECH MECH**

WE ARE GEARS OF TOMORROW

YSPM

Odd Sem 2023-2024



YSPM's Yashoda Technical Campus, Satara

Mechanical Engineering Department

YASHO TECH MECH

Odd Semester

2023-24

OVERVIEW OF THE DEPARTMENT

The Mechanical Engineering program leading to the bachelor's degree in Mechanical Engineering (B. Tech.) is having a structured curriculum that prepares students for a broad range of career choices in the different areas of Engineering. The Course is intended for students whose career objectives require greater flexibility. Mechanical Engineering deals with material selection, design and production of tools, machines, and all other Mechanical equipment to be used in industries. Our Department prepares the students who are the driving forces behind many of our technologies and industrial processes including innovative products.

The Mechanical Engineering Department has been accredited with institute level accreditation program by National Assessment and Accreditation Council (NAAC) with B+ grade.

Our Departmental faculties are specialized in areas like Thermal Engineering, Design, Materials and Manufacturing & CAD/CAM etc. Our Students have been recruited in many reputed organizations.

Strength of Department

- Good infrastructure.
- Well-equipped laboratories.
- Well-qualified and experienced teaching faculties.
- Departmental Library facility for students.
- Personal Monitoring of Students with the help of Guardian Faculty Members
- Good academic performance
- Good Campus Placement Record
- Faculty Retention

Vision of the Department

To be identified as a department with excellence in academics by synergism of teaching-learning, skill development and research.

Mission of the Department

M1 : To develop state of the art facilities to stimulate faculty, staff and students to create, analyze, apply and disseminate knowledge.

M2 : To hone employability and entrepreneurship skills of the students through industry-institute interaction.

M3 : To create an environment for the students to excel in mechanical engineering field, engage in research and development activity and participate in professional activities.

M4 : To develop an ability to use techniques, skills, modern software and machine tools necessary in the practice of Mechanical Engineering Profession.



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Program Educational Objectives (PEOs)

PEO1 : Graduates should excel in engineering positions in industry and other organizations that emphasize design and implementation of engineering systems and devices.

PEO2 : Graduates should excel in best post-graduate engineering institutes, acquiring advanced degrees in engineering and related disciplines.

PEO3 : Alumni should establish a successful career in an engineering-related field and adapt to changing technologies.

PEO4 : Graduates are expected to continue personal development through professional study and self-learning.

PEO5 : Graduates should be good citizens and cultured human beings, with full appreciation of the importance of professional, ethical and societal responsibilities.

Program Specific Outcomes (PSOs)

PSO1 : Make the students employable in engineering industries.

PSO2 : Motivate the students for higher studies and research.

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INSIDE

1. STUDENT ARTICLES

2. FACULTY ARTICLES

3. FACULTY STUDENT CORNER

4. Art Gallery

Contributors

Faculty Name

Prof. Maner V B

Prof. Rathod M L

Prof. Nimbalkar P P

Prof. Raut S K

Prof. Atpadkar A B

Prof. Shivade A S

Student coordinators

1) Sakate Shivraj Mohan

2) Kunal Nandkumar Bagade

3) Kori Sachin Raju

4) Shinde Maheshwari B

5) Raut Siddharth Ananda

6) Patil Swapnil Suryakant

All
Students of
Department

Head of the Department
Dr. Tarang Shinde

Principal
Prof. Dr. P. R. Badadapure

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Engineers Day Celebration

Yashoda Technical Campus Faculty of Engineering, Department of Mechanical Engineering celebrated Engineers Day in association with Mechanical Engineering Students Association (MESA) on 15th September 2023 with great enthusiasm. The highlight of the event was a guest lecture organized by the Mechanical Engineering Students Association (MESA) on the topic "Job Opportunities for Engineers in Core Industry." The event fostered a spirit of curiosity and enthusiasm among the 96 students present and left a lasting impact on their academic and career aspirations.

The esteemed guest speaker for the event was Mr. Mayur Pawar, Managing Director of Gpro Drive Pvt. Ltd. Satara. His vast experience and expertise in the core industry made him an ideal choice to shed light on job opportunities for engineering graduates.



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Paper Presentation in an International Conference HTSE 2023

Dr. Tarang Shinde, Associate Professor in Mechanical Engineering, Faculty of Engineering, presented a paper titled "Fatigue analysis of gas nitrided AISI H13 die steel" in an International Conference on Heat Treatment and Surface Engineering (HTSE 2023) at Chennai Trade Center, Chennai on September 30th 2023.



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ISHRAE Student Chapter Installation at YTC Satara

The installation ceremony of Indian Society for Heating, Refrigeration and Air Conditioning Engineers (ISHRAE) student chapter for the Department of Mechanical Engineering, Yashoda Technical Campus, Satara, under ISHRAE Kolhapur Chapter, took place on Tuesday November 28th 2023 in the Department of Mechanical Engineering, Mechanical Seminar hall. The ceremony was attended by Prof. Ajinkya Sagare, Vice President, YSPM, Dr. V. K. Redasani, Director, YSPM, Dr. P. R. Badadapure, Principal, YSPM and Dr. T. R. Shinde, head of the department of Mechanical Engineering along with the faculty members and students. Shri. Pramod Pungaonkar, President Elect ISHRAE Kolhapur Chapter, Shri. Sanjay Ranade, Ex-President, ISHRAE Kolhapur Chapter Shri. Sunil Tilekar, Associate Member, ISHRAE Kolhapur Chapter and Shri. Uday Kulkarni, Treasurer, ISHRAE Kolhapur Chapter, Mr. Dilip Kirpekar, Shri. Amrut Satvekar, immediate past President, ISHRAE Kolhapur Chapter presided the program.



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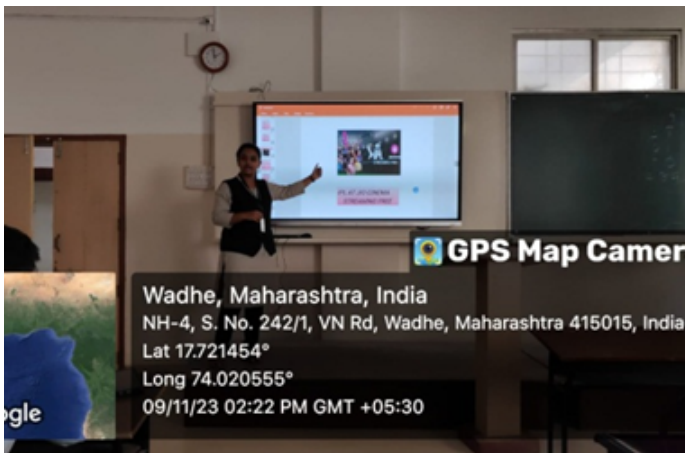
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Avishkar 2024 Institute Level Round

Yashoda Technical Campus, Faculty of Engineering, in association with Institution's Innovation Council (IIC) had organized Avishkar 2024 Institute Level Round on Thursday November 9th 2023 at Yashoda Technical Campus, Satara.

The event was inaugurated by Chief Guest Mr. Aditya Mutalik, Executive Committee member Manufacturer's Association of Satara (MAS). Prof. Dasharath Sagare, Founder President, YSPM felicitated the Chief Guest and addressed the gathering. Mr. Pravin Gavade, I/C Principal, Faculty of Polytechnic and Mr. Mutalik guided the students regarding job opportunities, Entrepreneurship. Mr. Ajinkya Sagare, Vice President, YSPM, Dr. P. R. Badadapure, Principal of Faculty of Engineering presided the function. Dr. T. R. Shinde, Head of the Department of Mechanical Engineering, presented vote of thanks.



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Avishkar 2024

Zonal Round Report

The Western Maharashtra zonal level round of Avishkar 2024 was held at YSPM's Yashoda Technical Campus, Satara on Sunday November 26th 2023. Total 141 students from undergraduate and post graduate from Satara, Sangli, Kolhapur and Sindhudurg districts participated in this event. There were six disciplines under which students competed in undergraduate and post graduate category. These six disciplines include Agriculture and Animal Husbandry, Commerce, Management and Law, Humanities, Languages, Fine Arts, Medicine and Pharmacy, Pure Science and Engineering Technology. Dr. B. V. Chaware, Zonal Coordinator for Avishkar 2024 welcome the guests and the dignitaries. Prof. Sangita Metkar, Observer for Avishakar 2024 and Head of the Department of Petrochemical Engineering, Dr. Babasaheb Ambedkar Technological University, Lonere, Dist. Raigad presided the inaugural function. Prof. Dasharath Sagare, Founder President, YSPM guided the participants through his speech. Dr. V. K. Redasani, Director, YSPM introduced the participants and judges about the institute. Dr. S. V. Balshetwar, Head of the Department of Computer Science and Engineering, expressed the vote of thanks for the Inaugural Function. Dr. T. R. Shinde summarized the event updates to the audience.



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Dr. Tarang Shinde, Associate Professor in Mechanical Engineering delivered a session on "Industry-Institute Interaction" on December 24th in Manufacturer's Association of Satara (MAS) Industrial Exhibition held at ZP ground.



Industry 4.0: Revolution in Mechanical Engineering

Industry 4.0, also known as the Fourth Industrial Revolution, is transforming mechanical engineering by integrating smart technologies for automation, efficiency, and innovation.

Key Technologies in Industry 4.0

- ✓ IoT (Internet of Things) - Connects machines for real-time monitoring, predictive maintenance, and reduced downtime.
- ✓ AI & Machine Learning - Enhances design optimization, defect detection, and decision-making through data-driven insights.
- ✓ Additive Manufacturing (3D Printing) - Enables rapid prototyping and complex part production with minimal material waste.
- ✓ Cyber-Physical Systems (CPS) - Integrates digital and physical processes for smart factories and automated production lines.
- ✓ Big Data & Cloud Computing - Helps industries analyze vast amounts of data for efficiency and predictive analytics.

Impact on Mechanical Engineering

Higher Efficiency - Smart factories reduce errors and enhance productivity.

Reduced Costs - Predictive maintenance minimizes machine failures.

Sustainability - Optimized resource use lowers environmental impact

**By Final Year Student
Kunal Nandkumar Bagade**